

REMARKS/ARGUMENTS

Claims 1-10 and 42-47 are pending. Claims 11-41 have been canceled without prejudice, and new Claims 42-47 have been added.

Claims 1-6, 8-18, 20-31, 33, 34, and 41 were rejected as being anticipated by U.S. Patent No. 6,174,825 to Dutt. Claims 7, 19, and 32 were rejected as unpatentable over Dutt.

The claimed invention is concerned with a belt for conveying food. The belt is formed from a composite sheet comprising a reinforcing fabric formed of warp yarns and weft yarns, the fabric being completely encapsulated within a polymeric material. It is important that a belt used for conveying food not absorb or harbor liquids that could promote bacterial growth on the belt. Completely encapsulating the fabric within a polymeric material is effective for making the belt nonabsorbent and impenetrable to liquids. However, it is also desired to make belts of various widths from a supply of wider composite sheet material, by slitting the wider composite sheet to the desired width. Unless special precautions are taken in the design of the composite sheet and the fabrication of the belt therefrom, the fabric may be exposed to liquids at the cut edge. The claimed invention is aimed at solving this problem.

The solution generally entails providing the fabric to have a special structure in which the warp yarns (which extend parallel to the length direction of the composite sheet and belt formed therefrom) are arranged in groups that are spaced apart across the width direction of the sheet. The sheet thus has a series of alternating first and second areas across the width, the first and second areas extending lengthwise along the sheet. The weft yarns extend through the first and second areas. The first areas have warp yarns and the second areas are devoid of warp yarns. A belt of desired width is formed from the composite sheet by cutting the sheet along at least one longitudinal cut line located in one of the second areas where there are no warp yarns. Accordingly, only the end faces of the weft yarns are exposed at the cut edge. The weft yarns advantageously comprise monofilament polymeric yarns that do not absorb liquids. In this way, the cut edge is not susceptible to absorbing or harboring liquids.

Claim 1 has been amended to recite that at least one of the longitudinally extending edges of the composite sheet is a cut edge formed by cutting a wider composite sheet along a longitudinal cut line located in a second area of the sheet such that the weft yarns extend all the way to the cut edge and terminate at the cut edge.

Dutt is not concerned with a belt for conveying food. Dutt discloses a belt for use in a papermaking process, where there is no particular importance to making the belt nonabsorbent to liquids that could promote bacterial growth. While Dutt generally desires the belt to be impermeable to water and oil, Dutt teaches that the outer surface of the belt can be provided with grooves 38 (Figure 3) or blind-drilled holes for receiving water expressed from the paper web in the shoe press nip (col. 6, lines 29-37). It is thus evident that Dutt is not concerned with completely preventing the harboring of liquids in the belt.

Furthermore, Dutt is not concerned with making belts of various widths from a wider composite sheet. Dutt's process entails forming a fabric as an endless loop and then impregnating the fabric with polymeric material using an apparatus as shown in Figure 14. The resulting belt evidently is used as it comes off the apparatus; nowhere does Dutt suggest cutting the belt along a longitudinal cut line.

Thus, Dutt does not disclose a composite sheet as defined by Claim 1. Nothing in Dutt teaches or suggests a composite sheet having at least one of its longitudinal edges formed as a cut edge by cutting a wider composite sheet along a longitudinal cut line located in an area where there are no warp yarns, such that the weft yarns extend all the way to the cut edge and terminate at the cut edge. Accordingly, it is submitted that Claim 1 is patentable over Dutt.

New independent Claim 42 is directed to a belt for conveying food. The belt is formed from a wider composite sheet, by cutting the sheet along at least one longitudinally extending cut line such that at least one of the longitudinally extending edges of the belt is a cut edge. The cut edge is located in an area of the composite sheet that is free of warp yarns. For reasons similar to those noted above in connection with Claim 1, it is submitted that Claim 42 is patentable over Dutt.

New Claim 43 recites that the ends of the weft yarns at the cut edge are melted along with the polymeric material of the composite sheet at the cut edge and then re-solidified such that an intimate melt-sealed interface exists between the ends of the weft yarns and the polymeric material at the cut edge. Dutt does not disclose or suggest a belt having such a cut edge. Thus, Claim 43 is patentable for this further reason.

New Claim 44 recites that the weft yarns are uniformly spaced apart in the length direction. Dutt does not teach or suggest a belt having a fabric with non-uniformly spaced warp yarns but uniformly spaced weft yarns as claimed. Accordingly, Claim 44 is patentable for this additional reason.

New Claim 46 recites that the warp yarns are multifilament yarns and the weft yarns are monofilament yarns. Dutt does not disclose the particular combination of multifilament warp yarns with monofilament weft yarns as claimed.

New Claim 47 recites that the warp yarns have a denier of about 500 to about 2000, and the weft yarns have a denier of about 560. Dutt does not disclose or suggest these features.

For the above reasons, it is submitted that all rejections have been overcome and all pending claims are patentable over Dutt.

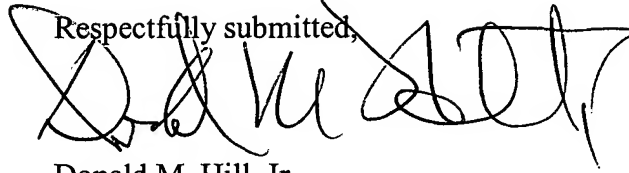
Conclusion

Based on the above amendments and remarks, Applicant respectfully submits that the application is in condition for allowance.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required

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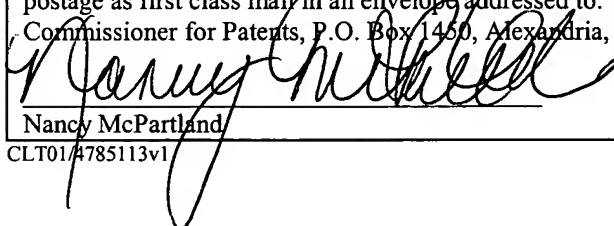
therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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